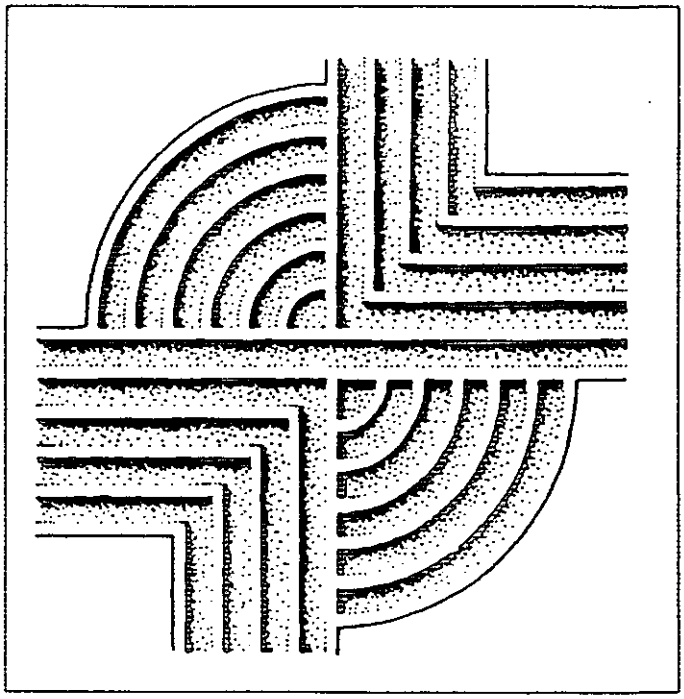
ARCHAEOLOGICAL SURVEY OF THE PROPOSED DEVON FOREST DEVELOPMENT, BERKELEY COUNTY, SOUTH CAROLINA



CHICORA RESEARCH CONTRIBUTION 301

ARCHAEOLOGICAL SURVEY OF THE PROPOSED DEVON FOREST, BERKELEY COUNTY, SOUTH CAROLINA

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Chicora Research Contribution 301

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ABSTRACT

This study reports on an intensive archaeological survey of the approximately 22 acres comprising the proposed Devon Forest development in south central Berkeley County. The proposed development is situated east of an existing Santee Cooper power easement, and south and west of existing developments. The survey tract forms a small "island" of better drained soils largely surrounded by Daisy Swamp and King Branch. The work was conducted to assist Sabine and Waters comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

Historically the survey area was considered to be low and inhospitable. Much of the vicinity was devoted to rice production, while historic settlement was limited to the major roads and higher ground areas. In the twentieth century the area was extensively cultivated. There are no archaeological sites identified on or immediately adjacent to the survey tract, although there are a number of sites on surrounding tracts, especially to the south. Likewise, there are no National Register sites within a mile of the proposed survey tract.

Given the extensively developed nature of the project area, the area of potential effects (APE) was defined as 0.5 mile (although the background search extended to 1.0 mile). There are no historic properties within this APE, which is dominated by modern subdivisions, swamp, and utility corridors. It is unlikely that the proposed development will have any affect on historic properties further removed from the project location.

The archaeological survey consisted of shovel testing at 100 foot intervals along transects laid out at 100 foot intervals through the tract. The shovel tests revealed generally reduced, damp soils with A horizons of black to dark gray loam over yellowish-brown to gray subsoils. The vegetation of the tract was very thick, often limiting visibility to 40 feet or less. At the time of the survey the tract was not flagged or otherwise marked, so the survey relied on the boundary map prepared by Forsburg Engineering. That plat, however, did not include either trees or topo lines, so it was often difficult to determine the survey location. A series of 10 transects were placed across the survey area, with a total of 89 shovel tests. In retrospect, it is likely that survey using transects and shovel tests at 200 foot intervals would have been appropriate for the study area, given its low, poorly drained setting.

No archaeological sites were identified during this investigation and no additional management activities are recommended. It is possible that archaeological remains may be encountered in the corridor during construction. Construction crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

The investigation of the proposed 22 acre Devon Forest development was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Ken Smoak of Sabine & Waters. The development tract is situated in south central Berkeley County, about 20 miles northwest of Charleston and 7 miles northwest of Goose Creek (Figure 1). This particular area of Berkeley County has seen exceptional growth and development over the past 20 years, with what was originally almost entirely wooded tracts being transformed into a series of housing developments.

This work was conducted to assist Sabine & Waters comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800. In particular, the work was conducted in response to a letter dated May 26,2000 from the State Historic Preservation Office to the Charleston District Corps of Engineers (P/N 2000-1D-189-C) requesting that a cultural resources investigation be conducted prior to the issuance of a permit.

The tract is roughly triangular, measuring about 1100 feet east-west by about 1200 feet north-south. It borders an existing Santee Cooper powerline easement on the west. To the north it is separated from an extant development by a swamp slough, although there is an existing gravel road, connecting the development tract to Kingsbridge Way (a subdivision road). To the east the tract grades into swamp which separates the parcel from Oak Creek Subdivision. To the south are lots 45 and 12 of Berkeley Farms, another development tract (Figure 2).

Chicora was requested to submit a budgetary proposal for an intensive survey by Mr. Ken Smoak of Sabine & Waters on June 6, 2000. A proposal was submitted on June 8, 2000 and a notice to proceed was received in early July 2000. The archaeological investigation was conducted by Dr. Michael Trinkley. The field crew consisted of Mr. Tom Covington, Ms. Angela Vincent, Ms. Amy Weaver, Ms. Heather Sinnott, Ms. Donna Rogers, and Ms. Jill Langenburg. The field investigations were conducted on July 20 and required 42 person hours, largely because of the dense undergrowth of the survey tract.

The statewide archaeological site files held by the South Carolina Institute of Archaeology and Anthropology were examined by Mr. Tom Covington on July 7 for information pertinent to the project area. Although there were a number of archaeological sites in the general area, none were recorded on or adjacent to the proposed tract.

In addition, the South Carolina Department of Archives and History GIS database was reviewed. There are no National Register of Historic Places buildings, districts, structures, sites, or objects on or within a mile of the project area. There are no recorded architectural sites within a mile of the development tract.

While the background search extended for a mile, we have defined the area of potential effect (APE) for this project to be only 0.5 mile. This is based on the extensive development of the area. The proposed development, situated in the midst of existing developments, will not introduce any "visual, audible, or atmospheric elements" which are not already present. In addition, the existence of a swamp slough encircling much of the development tract will likely isolate this enclave from others in the immediate area.

The effects of this undertaking will likely be limited to the immediate project area. We anticipate that the development will involve extensive clearing and grubbing, various soil preparation activities, heavy equipment stagging and movement, increased traffic through existing neighborhoods, the potential for siltation and erosion associated with the clearing and grubbing activities, the potential for increased dust levels during construction, and increased noise levels for short durations associated with the various construction

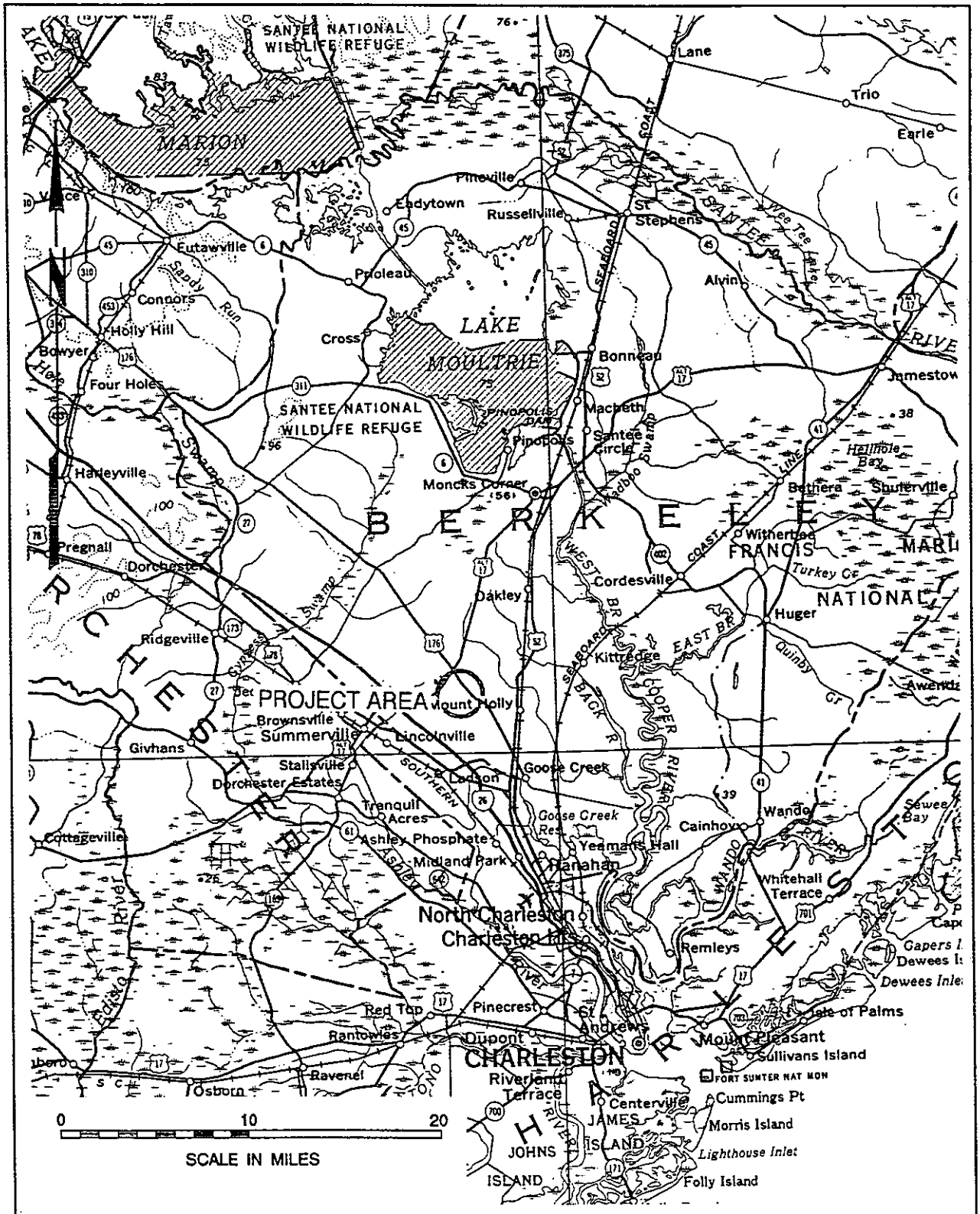


Figure 1. Location of the project in the Berkeley County area (basemap is USGS South Carolina 1:500,000).

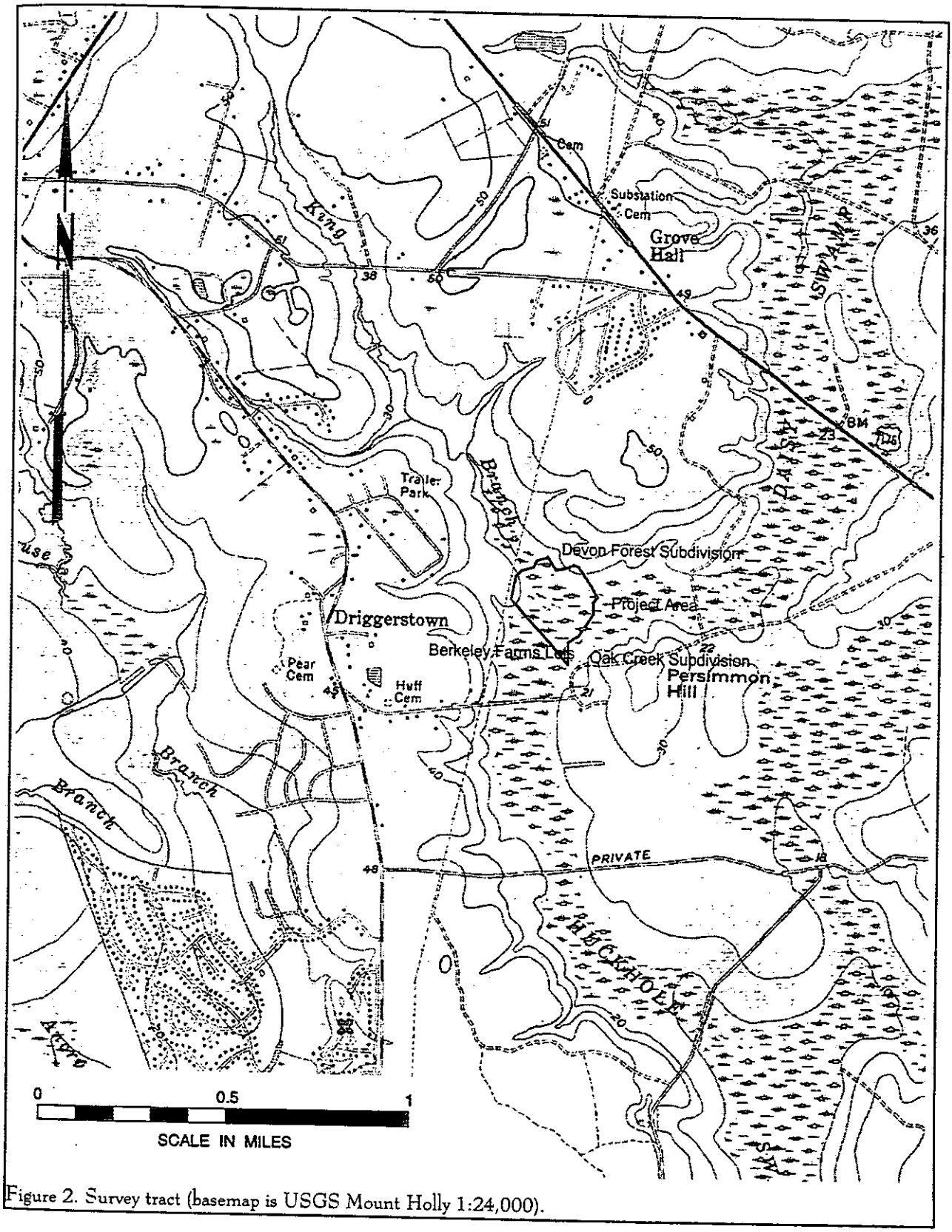


Figure 2. Survey tract (basemap is USGS Mount Holly 1:24,000).

activities. We have not, however, identified any historic properties within 0.5 mile of the undertaking which are likely to be affected by these activities.

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.

ENVIRONMENTAL BACKGROUND

Physiographic Region

Berkeley County is situated in the lower Atlantic Coastal Plain of South Carolina. Containing about 1,100 square miles, it is bordered by Georgetown County to the northeast, Charleston County to the southeast and southwest, Dorchester County to the west, Orangeburg County to the northwest, and Clarendon and Williamsburg counties to the north.

The topography of the country is characterized by subtle undulation characteristic of beach ridge plains. The elevations range from sea level to approximately 105 feet above mean sea level (AMSL). In the vicinity of the development tract the elevations range from about 10 to 20 feet AMSL. The topography is generally level although the center of the survey tract is clearly more elevated and it drops off noticeably on the edges of the parcel.

Berkeley is drained by three significant river systems: the Santee, Wando, and Cooper rivers. The Santee has a large freshwater discharge and forms the northern boundary with neighboring Georgetown County. The Wando is a coastal river, being dominated by tidal action. The Cooper River, which flows through the center of the County, was also originally a tidal river, but it has been modified by a large volume of fresh water diverted from the Santee through Lakes Marion and Moultrie. In addition, there are a number of broad, low-gradient interior drainages that are present either as extensions of tidal streams or flooded bays and swales.

Significant drainages in the corridor are Kings Branch to the northwest and Daisy Swamp to the northeast, which flow together to form Huckhole Swamp in the project area. Huckhole then flows south into Bluehouse Swamp, which in turn forms Goose Creek. To the west of the project area is Ancrum Swamp, which also flows eastward into Bluehouse Swamp.

As previously mentioned, Berkeley County is made up of one broad physiographic area, often called the lower Atlantic Coastal Plain or the Atlantic Coast Flatwoods. The surface soils are almost entirely sedimentary and were transported into the area from elsewhere. The geology of Berkeley County is characteristic of the region; the formations covering the surface date from the Pleistocene and include sands, clays, gravels, and phosphates.

Geology and Soils

In general the soils in lower Berkeley are part of the Wahee-Duplin-Lenoir association. They tend to be somewhat poorly to moderately well drained and have a loamy surface layer with a clayey subsoil. There are three soil series comprising the project area.

On the fringes of the tract are Meggett loams. These soils are found in level to depressional low, flat areas. Formed in clayey Coastal Plain sediments, they are poorly drained. The A horizon is about 0.6 foot in depth consisting of a very dark gray (10YR3/1) loam grading into a dark gray (5YR4/4) loam. At the base is the B horizon, a dark gray (10YR4/1) clay loam to depths of nearly 2.0 feet. Below this is a gray clay (Long 1980:22-23). Brief flooding of these soils is common and the seasonal high water table may be at the soil's surface (Long 1980:91).

The central area includes Ocilla loam fine sands. These soils are nearly level and found on broad flat areas. They are somewhat poorly drained and have an Ap horizon about 0.7 foot in depth consisting of a dark grayish brown (10YR4/2) loamy fine sand overlying pale brown (10YR6/3) sand to a depth of about a foot. This grades into a very pale brown (10YR7/3) sand to a depth of about 2 feet. Below this is yellowish brown (10YR5/6) sand to about 3 feet. The seasonal high water table in these soils may be within a foot of the surface (Long 1980:24-25,91).

Also present in the central area are Lynchburg soils. This series is found in broad low areas and is somewhat poorly drained. Seasonal high water may be within the upper 0.5 foot of the soil profile (Long 1980:91). A typical profile may evidence about 0.6 foot of A horizon soils, generally a black (10YR2/1) to light yellowish brown (2.5YR6/4) sand over a yellowish brown (10YR5/4) sandy loam B horizon to a depth of about a foot. Below this the B horizon continues as a gray (10YR5/1) sandy clay loam (Long 1980:21-22).

Climate

Berkeley County has a subtropical climate, characterized by warm summers, mild winters, and adequate precipitation fairly evenly spread throughout the year. Except in the summer, when maritime tropical air controls the climate of the area, the daily weather patterns are controlled by west to east moving pressure systems and associated fronts.

Yearly precipitation averages 47 inches, but ranges from 39 to 55 inches. The growing season, from April to September, receives an average of 31 inches or about 66% of the yearly total. The average length of the freeze-free growing season is approximately 260 days, although frosts can occur as early as October 26 and as late as April 15 (Long 1980:46).

Mills remarked in 1826 that Carolina was similar to European climates, lying at a similar latitude. He noted that:

> in comparing the climate of South Carolina, with similar climates in Europe, we find it lying under the same atmospheric influences with Aix, Rochelle, Montpelier, Lyons, Bordeaux, and other parts of France; with Milan, Turin, Padua, Mantua, and other parts of Italy (Mills 1972 [1826]:133).

The coastal region is a moderately high risk zone for tropical storms, with 169 hurricanes being documented from 1686 to 1972 (0.59 per year) (Mathews et al. 1980:56). One of the most devastating in the eighteenth century was the hurricane of September 15, 1752. One report listed 92 people drowned, although the death toll, especially among the African American slaves was likely much higher. The storm also had considerable long-term effects and Calhoun notes that:

> the destruction of trees was severe; one plantation owner's loss was assessed at $50,000 and many of those trees which survived were "heart-shaken," and unfit for use. Crops were even more damaged as the storm followed a severe drought.

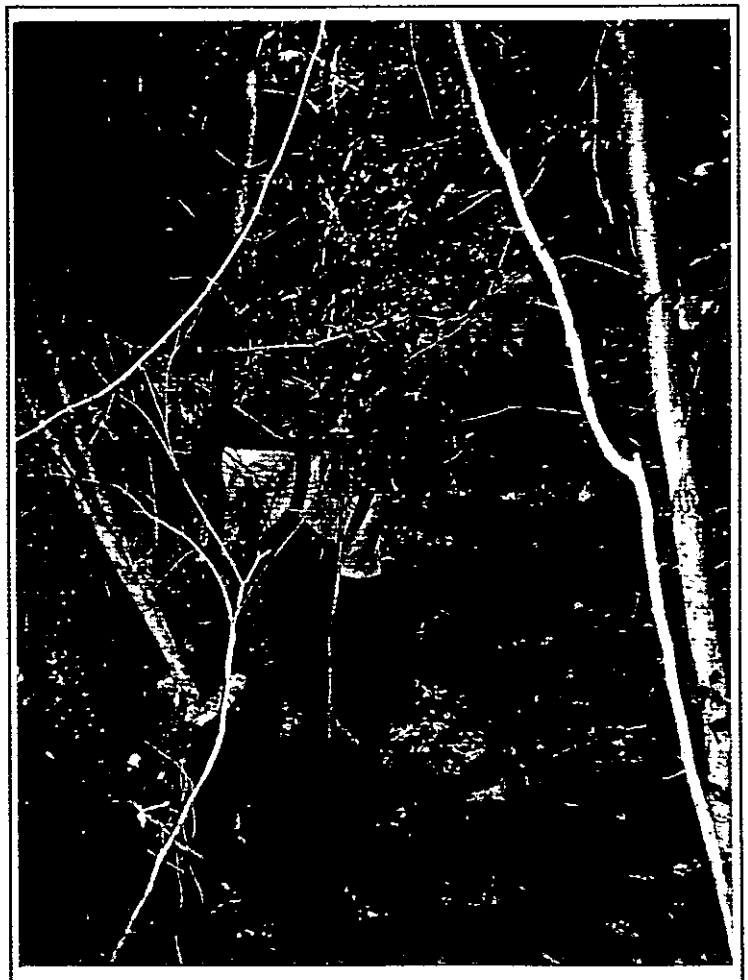


Figure 3. Example of dense vegetation within the survey tract.

> It was necessary to enact laws to regulate the exportation and sale of corn, "Peafe," and small rice, so that "the poor may be able to purchase Provisions at a moderate Price" (Calhoun 1983:9).

Vegetation

Speaking of the coastal plain Braun observed that:

> the vegetation of this region is in part warm temperate-subtropical, in part distinctively coastal plain, and in part temperate deciduous. It is made up of widely different forest communities - coniferous, mixed coniferous and hardwood, deciduous hardwood, and mixed deciduous and broad-leaved evergreen hardwood - interrupted here and there by swamps, bogs, and prairies. The large number of unlike communities is related to the diverse environmental conditions of the region (Braun 1974:282)

Indeed, an examination of the region around Berkeley County reveals tremendous diversity. One detailed study revealed a mosaic including the oak-hickory-pine forest common to upland areas, oak-gum-bald cypress forest typical of the southern floodplains, pine forests found in mesic to xeric upland sites, mesophytic broadleaved forests on more mesic slope sites, old rice fields, and a variety of swamp forests such as the tupelo-cypress, low hardwood, and ridge hardwoods (Federal Power Commission 1977). All of these forest types have different dominants and different understory vegetation (see Barry 1980).

In the project area the vegetation is dense (Figures 3 and 4), including a broad range of mesic species, as well as briers, poison ivy, and other herbaceous materials.

Figure 4. View of the west edge of the survey tract bordering the powerline easement.

PREHISTORIC AND HISTORIC SYNOPSIS

Prehistoric Synopsis

The Paleo-Indian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points, side scrapers, end scrapers; and drills (Coe 1964; Michie 1977; Williams 1968). The Paleo-Indian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

Unfortunately, little is known about Paleo-Indian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleo-Indian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 2000 B.C., does not form a sharp break with the Paleo-Indian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited mammal. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the South Carolina coastal plain and piedmont. Archaic period assemblages, exemplified by corner-notched and broad-stem projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

In the Coastal Plain of the South Carolina there is an increase in the quantity of Early Archaic remains, probably associated with an increase in population and associated increase in the intensity of occupation. While Hardaway and Dalton points are typically found as isolated specimens along riverine environments, remains from the following Palmer phase are not only more common, but are also found in both riverine and interriverine settings. Kirks are likewise common in the coastal plain (Goodyear et al. 1979).

The two primary Middle Archaic phases found in the coastal plain are the Morrow Mountain and Guilford (the Stanly and Halifax complexes identified by Coe are rarely encountered). Our best information on the Middle Woodland comes from sites investigated west of the Appalachian Mountains, such as the work in the Little Tennessee River Valley. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and South Carolina, where axes, choppers, and ground and polished stone tools are very rare.

The Late Archaic is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued the intensive exploitation of the uplands much like earlier Archaic groups. The bulk of our data for this period, however, comes from work in the Uwharrie region of North Carolina.

The Woodland period begins by definition with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast (the introduction of pottery, and hence the beginning of the Woodland period, occurs much later in the Piedmont of South Carolina). It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the

Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2500 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings (fiber-tempered) pottery (see Figure 5 for a synopsis of Woodland phases and pottery designations). The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish.

Like the Stallings settlement pattern, Thom's Creek sites are found in a variety of environmental zones and take on several forms. Thom's Creek sites are found throughout the South Carolina Coastal Zone, Coastal Plain, and up to the Fall Line. The sites are found into the North Carolina Coastal Plain, but do not appear to extend southward into Georgia.

In the Coastal Plain drainage of the Savannah River there is a change of settlement, and probably subsistence, away from the riverine focus found in the Stallings Phase (Hanson 1982:13; Stoltman 1974:235-236). Thom's Creek sites are more commonly found in the upland areas and lack evidence of intensive shellfish collection. In the Coastal Zone large, irregular shell middens, small, sparse shell middens; and large "shell rings" are found in the Thom's Creek settlement system.

The Deptford phase, which dates from 1100 B.C. to A.D. 600, is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland, sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Coastal Plain, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980b). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98).

Throughout much of the Coastal Zone and Coastal Plain north of Charleston, a somewhat different cultural manifestation is observed, related to the "Northern Tradition" (e.g., Caldwell 1958). This recently identified assemblage has been termed Deep Creek and was first identified from northern North Carolina sites (Phelps 1983). The Deep Creek assemblage is characterized by pottery with medium to coarse sand inclusions and surface treatments of cord marking, fabric impressing, simple stamping, and net impressing. Much of this material has been previously designated as the Middle Woodland "Cape Fear" pottery originally typed by South (1976). The Deep Creek wares date from about 1000 B.C. to A.D. 1 in North Carolina, but may date later in South Carolina. The Deep Creek settlement and subsistence systems are poorly known, but appear to be very similar to those identified with the Deptford phase.

The Deep Creek assemblage strongly resembles Deptford both typologically and temporally. It appears this northern tradition of cord and fabric impressions was introduced and gradually accepted by indigenous South Carolina populations. During this time some groups continued making only the older carved paddle-stamped pottery, while others mixed the two styles, and still others (and later all) made exclusively cord and fabric stamped wares.

The Middle Woodland in South Carolina is characterized by a pattern of settlement mobility and short-term occupation. On the southern coast it is associated with the Wilmington phase, while on the northern coast it is recognized by the presence of Hanover, McClellanville or Santee, and Mount Pleasant assemblages. The best data concerning Middle Woodland Coastal Zone assemblages comes from Phelps' (1983:32-33) work in North Carolina. Associated items include a small variety of the Roanoke Large Triangular points (Coe 1964:110-111), sandstone abraders, shell pendants, polished stone gorgets, celts, and woven marsh mats. Significantly, both primary inhumations and cremations are found.

On the Coastal Plain of South Carolina,

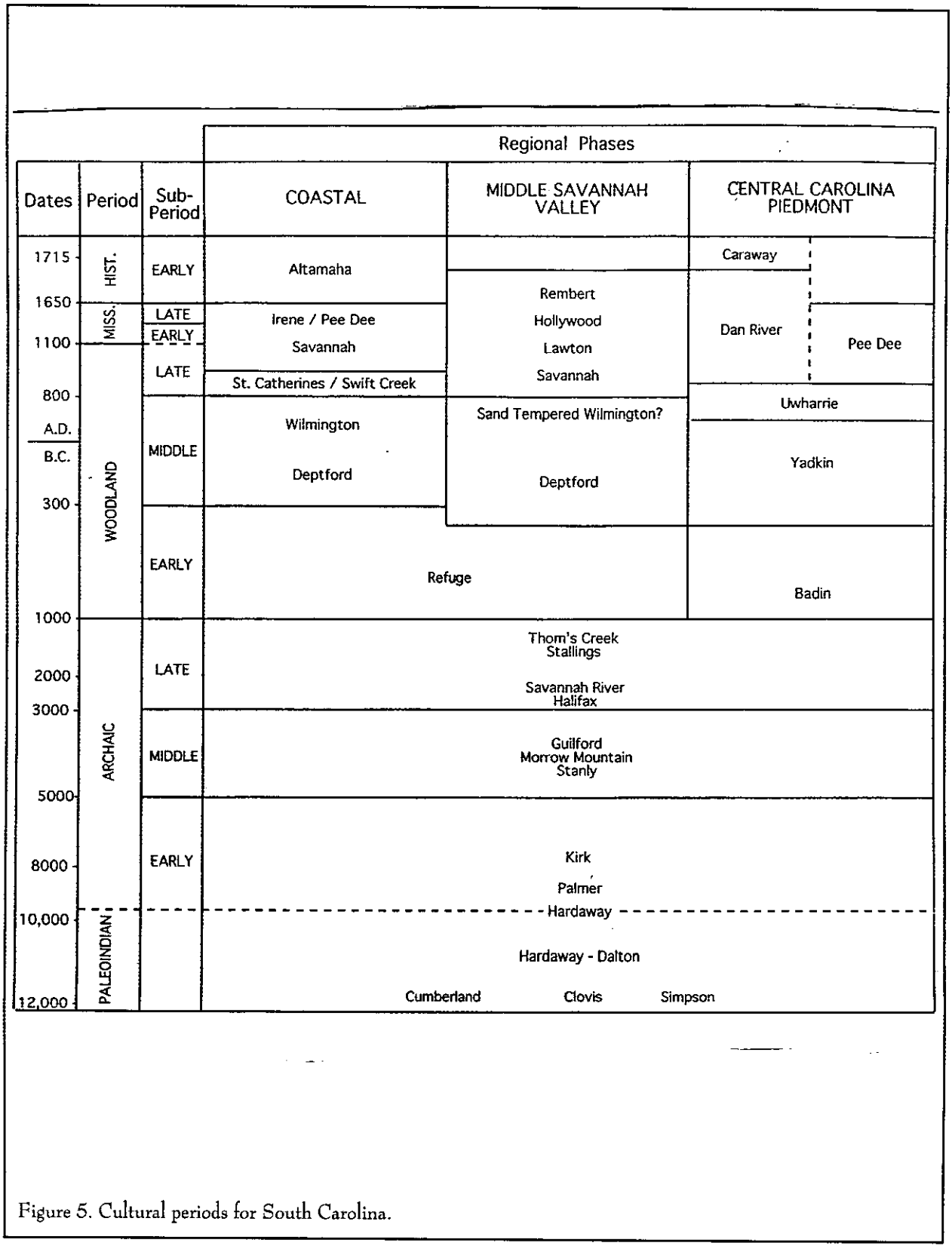


Figure 5. Cultural periods for South Carolina.

researchers are finding evidence of a Middle Woodland Yadkin assemblage, best known from Coe's work at the Doerschuk site in North Carolina (Coe 1964:25-26). Yadkin pottery is characterized by a crushed quartz temper and cord marked, fabric impressed, and linear check stamped surface treatments. The Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least A.D. 300 coexisted with this Triangular Tradition. The Yadkin series in South Carolina was first observed by Ward (1978, 1983) from the White's Creek drainage in Marlboro County, South Carolina. Since then, a large Yadkin village has been identified by DePratter at the Dunlap site (38DA66) in Darlington County, South Carolina (Chester DePratter, personal communication 1985) and Blanton et al. (1986) have excavated a small Yadkin site (38SU83) in Sumter County, South Carolina. Research at 38FL249 on the Roche Carolina tract in northern Florence County revealed an assemblage including Badin, Yadkin, and Wilmington wares (Trinkley et al. 1993:85-102). Anderson et al. (1982:299-302) offer additional typological assessments of the Yadkin wares in South Carolina.

Over the years the suggestion that Cape Fear might be replaced by such types as Deep Creek and Mount Pleasant has raised considerable controversy. Taylor, for example, rejects the use of the North Carolina types in favor of those developed by Anderson et al. (1982) from their work at Mattassee Lake in Berkeley County (Taylor 1984:80). Cable (1991) is even less generous in his denouncement of ceramic constructs developed nearly a decade ago, also favoring adoption of the Mattassee Lake typology and chronology. This construct, recognizing five phases (Deptford I - III, McClellanville, and Santee I), uses a type variety system.

Regardless of terminology, these Middle Woodland Coastal Plain and Coastal Zone phases continue the Early Woodland Deptford pattern of mobility. While sites are found all along the coast and inland to the Fall Line, shell midden sites evidence sparse shell and artifacts. Gone are the abundant shell tools, worked bone items, and clay balls. Recent investigations at Coastal Zone sites such as 38BU747 and 38BU1214, however, have provided some evidence of worked bone and shell items at Deptford phase middens (see Trinkley 1990).

In many respects the South Carolina Late Woodland may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500 to 700 years (cf. Sassaman et al. 1990:14-15). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

The South Appalachian Mississippian Period (ca. A.D. 1100 to 1640) is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest phases include the Savannah and Pee Dee (A.D. 1200 to 1550).

Historic Overview

The English established the first permanent settlement in what is today South Carolina in 1670 on the west bank of the Ashley River. Like other European powers, the English were lured to "new World" for reasons other than the acquisitions of land and promotion of agriculture. The Lords Proprietors, who owned the colony until 1719-1720, intended to discover a staple crop whose marketing would provide great wealth through the mercantile system.

By 1680 the settlers of Albermarle Point had moved their village across the bay to the tip of the peninsula formed by the Ashley and Cooper rivers. This new settlement at Oyster Point would become modern-day Charleston. The move provided not only a more healthful climate and an area of better defense, but:

> the cituation of this Town is so convenient for public Commerce that it rather seems to be the design of

> some skillful Artist than the accidental position of nature (Mathews 1954:153).

The early settlers of the Carolina colony came from other mainland colonies, England, and the European continent. But the future of Carolina was largely directed by the large number of colonists from the English West Indies. This Caribbean connection has been discussed by Waterhouse (1975), who argues that the Caribbean immigrants were largely from old families of economic and political prominence which formed the Barbados élite. Waterhouse observes that while elsewhere in the American colonies the early settled families were displaced from their established positions of power and economic superiority by newcomers, this did not occur in South Carolina. In Carolina:

> a relatively large proportion of those who, in the middle of the eighteenth century, were among the wealthier inhabitants, were descended from those families who had arrived in the colony during the first twenty years of its settlement (Waterhouse 1975:280).

This immigration turned out to be a significant factor in the stability and longevity of South Carolina's colonial élite. It also firmly established the foundations of slavery and cash crop plantations.

Many of these Barbadian immigrants settled in the Goose Creek area, forming one of the most influential political and economic groups in the colony (Stoney 1938:19). The "Goose Creek Men" included individuals such as Maurice Mathews, James Moore and John Boone. They favored increased Indian slavery, trade with the pirates or privateers that sailed the Carolina coast, and generally ignored the efforts of the Lords Proprietors to control the Colony's economic and political future. While the political power of the Goose Creek faction peaked in the 1720s, it continued to evidence considerable economic power well into the late 1740s (see Morgan 1980; Sirmans 1966).

Early agricultural experiments which involved olives, grapes, silkworms, and oranges were less than successful. While the Indian trade was profitable to many of the Carolina colonies, it did not provide the Proprietors with the wealth they were expected from the new colony. This trade was also limited since the Indian population was so dramatically reduced by European disease, the sale of alcohol, and slavery.

Cattle raising also was an easy way to exploit the region's land and resources, offering a relatively secure return for very little capital investment. Few slaves were necessary to manage the herd. The mild climate of the low country made winter forage more abundant and winter shelters unnecessary. The salt marshes on the coast, useless for other purposes, provided excellent grazing and eliminated the need to provide salt licks. More interior swamps found similar vegetation and provided a constant water supply (Coon 1972; Dunbar 1961). Production of cattle, hogs, and sheep quickly outstripped local consumption and by the early eighteenth century beef and pork were principal exports of the Colony to the West Indies (Ver Steeg 1975:114-116). This allowed the ties between Carolina and the Caribbean to remain strong, and provided essential provisions to the large scale, single crop plantations.

Rice and indigo both competed for the attention of Carolina planters. Although introduced at least by the 1690s, rice did not become a significant staple crop until the early eighteenth century. At that time it not only provided the Proprietors with the economic base the mercantile system required, but it was also to form the basis of South Carolina's plantation system — slavery.

South Carolina's economic development during the pre-Revolutionary War period involved a complex web of interactions between slaves, planters, and merchants. By 1710 slaves were starting to be concentrated on a few, large slave-holding plantations. By the close of the eighteenth century some South Carolina plantations had a ratio of slaves to whites that was 27:1 (Morgan 1977). And by the end of the century over half of eastern South Carolina's white population held slaves. With slavery came, to many, unbelievable wealth. Coclanis notes that:

> on the eve of the American Revolution, the white population of the low country was by far the richest single group in British North America. With the area's wealth based largely on the expropriation by whites of the golden rice and blue dye produced by black slaves, the Carolina low country had by 1774 reached a level of aggregate wealth greater than that in many parts of the world even today. The evolution of Charleston, the center of the low-country civilization, reflected not only the growing wealth of the area but also its spirit and soul (Coclanis 1989:7).

Only certain areas of the low country, however, were suitable for rice production. During the early years rice was grown as an upland crop, in small fields adjacent to freshwater streams where water could be easily impounded and applied to the crop. By the early 1700s planters found that upland swamps, such as those in the Goose Creek area, were even better suited for rice, although the soils were quickly exhausted (Meriwether 1940; Sellers 1934). These upland swamps, distinct from well-drained uplands, remained the focus of Carolina rice agriculture during the entire Colonial period.

Hewat, writing in 1779, describes the process of upland swamp rice cultivation:

> after the planter has obtained his tract of land, and built a house upon it, he then begins to clear his field of that load of wood with which the land is covered. Having cleared his field, he next surrounds it with a wooded fence, to exclude all hogs, sheep, and cattle from it. This field he plants with rice . . . year after year, until the lands are exhausted, or yield not a crop sufficient to answer his expectations. Then it is forsaken, and a fresh spot of land is cleared and planted, with is also treated in like manner, and in succession forsaken and neglected (Hewatt 1836:514).

This rather simplistic commentary failed to observe the engineering feat that upland swamp rice cultivation really was. Clearing, which alone was a monumental undertaking, was followed by the construction of dams, dikes, and trenches. By one estimate, a 500 acre rice field required 60 miles of dikes and ditches (Gunn 1976:1-16). Fields were carefully leveled to ensure that they could be completely covered by water. Rice was planted during two periods -- March 10 to April 10 and June 1 to June 10 -- avoiding May since vast migrations of "rice birds" passed through the state during that period and could destroy a crop. Rice was harvested in late August.

By 1730 the majority of the population of the colony, both rural and urban, was black (Wood 1974). By 1850, 46% of Charleston District's population (which included today's Berkeley County) consisted of African American slaves (DeBow 1854:302), although Hilliard (1984:37) indicates that more than 60% of the Charleston slaveholders by 1860 owned fewer than 10 slaves. Regardless, there remained vast plantations where the owner's wealth was achieved by the labor of black slaves.

During the eighteenth century the profits to be gained from rice were extraordinary, ranging from a 12% to nearly 28% net return on the investment, well exceeding other cash crops, such as tobacco or indigo (see Coclanis 1989:141). Charleston was the mecca around which the economic, political, and social world of Carolina revolved. Charleston provided the essential opportunity for conspicuous consumption, a mechanism which allowed the display of wealth accumulated from the plantation system.

By the end of the eighteenth century, beginning of the nineteenth century, the rate of return on rice had been reduced, at best, to about 2%, and many years the rate of return was a staggering -3% to -7%. In 1859, just before the Civil War, the return is reported to have been -28%. As Coclanis observes:

> the economy of the South Carolina

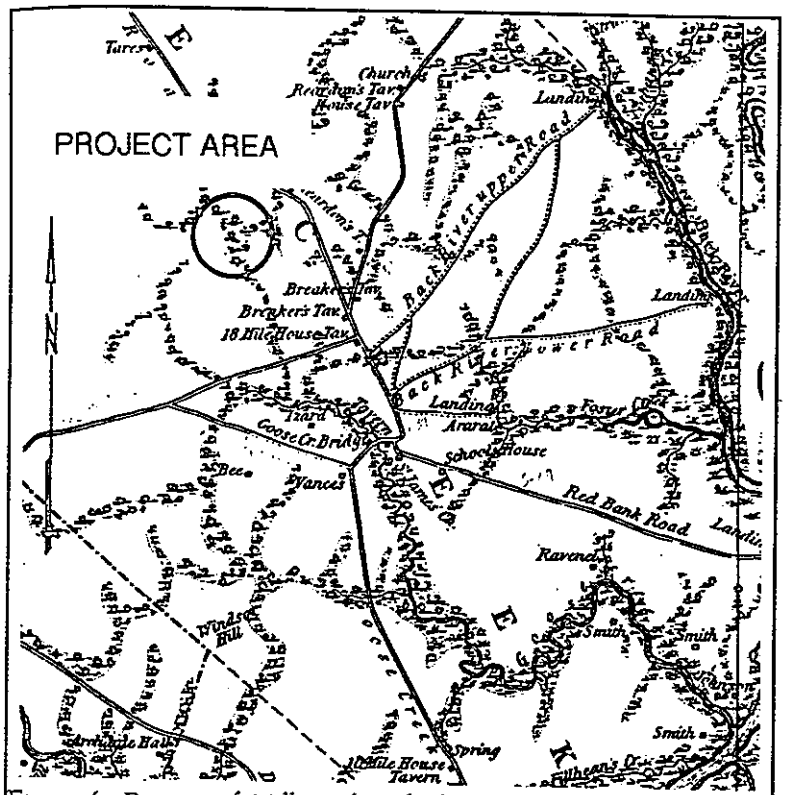


Figure 6. Portion of Mills' *Atlas* of Charleston County showing the vicinity of the survey tract.

settlement areas reveals that there is a consistent correlation between those areas and the nearby transportation network.

By the twentieth century the tract was part of the G.L. Carn estate (Figure 7) and even as late as 1951 the area was largely vacant swamp, primarily valued for its forest resources. There were no roads or other evidence of the settlement (Figure 8). The 1979 Mount Holly topographic map shows the area as swamp, still with no indication of settlement or development.

The tract was originally part of a 3,000 acre grant to Joseph Thorowgood in 1682 "on Coola Coll Creek" at the head of Goose Creek (Smith 1988:151). It appears that he died before taking possession of the tract since, in 1683 the tract "formerly granted to Joseph Thorogrood [sic] deceased" was granted to William Hawett [Hewett].

low country collapsed in the nineteenth century. Collapse did not come suddenly - many feel, for example, that the area's "golden age" lasted until about 1820 - but come it did nonetheless. By the late nineteenth century it was clear that the forces responsible for the area's earlier dynamism had been routed, the dark victory of economic stagnation virtually complete (Coclanis 1989:111).

Mills' *Atlas* reveals that the survey tract is in an area of limited development (Figure 6). In fact, it appears that this region was so sparsely settled that the map makers were not even inclined to provide much topographic detail. There are no significant roads in the area, which likely hindered settlement. Examination of other

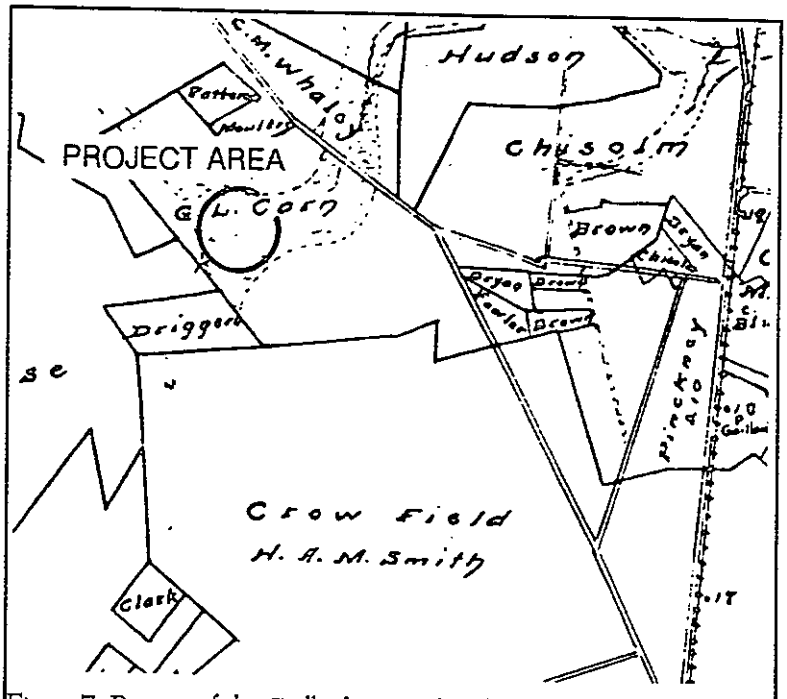


Figure 7. Portion of the Gaillard *Map of Berkeley and Parts of Charleston and Dorchester Counties, SC* showing the Carn tract.

Hewett died in Jamaica in 1719, leaving the plantation, slaves, and livestock to Jasper Ashworth. This suggests that not only was Hewett an absentee owner, but that he was using the swamp lands for cattle raising — a way to see profit from land with relatively little investment of capital. The following year Ashworth sold the tract to William Gibbon and Andrew Allen, Charleston merchants for the sum of £3,000 (Charleston County RMC DB B, page 39).

By means which are not clear, Allen appears to have acquired title to the property in his own name, since upon his death in 1735 he left the plantation to his son, William (Charleston County Wills vol. 3, page 221). At William Allen's death in 1749 the plantation was left to his wife, passing from her to his daughter (Charleston County Wills vol. 6, page 296). Elizabeth Allen married Charleston merchant John Deas in 1759 and the property was sold by Deas at that time to David Deas, another merchant, for £14,000 — a substantial profit.

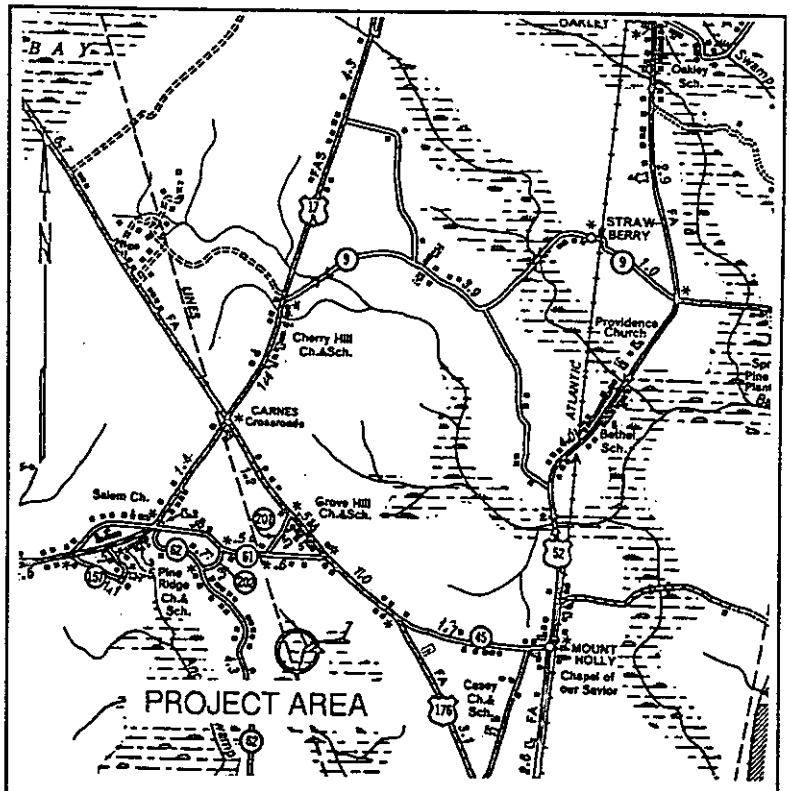


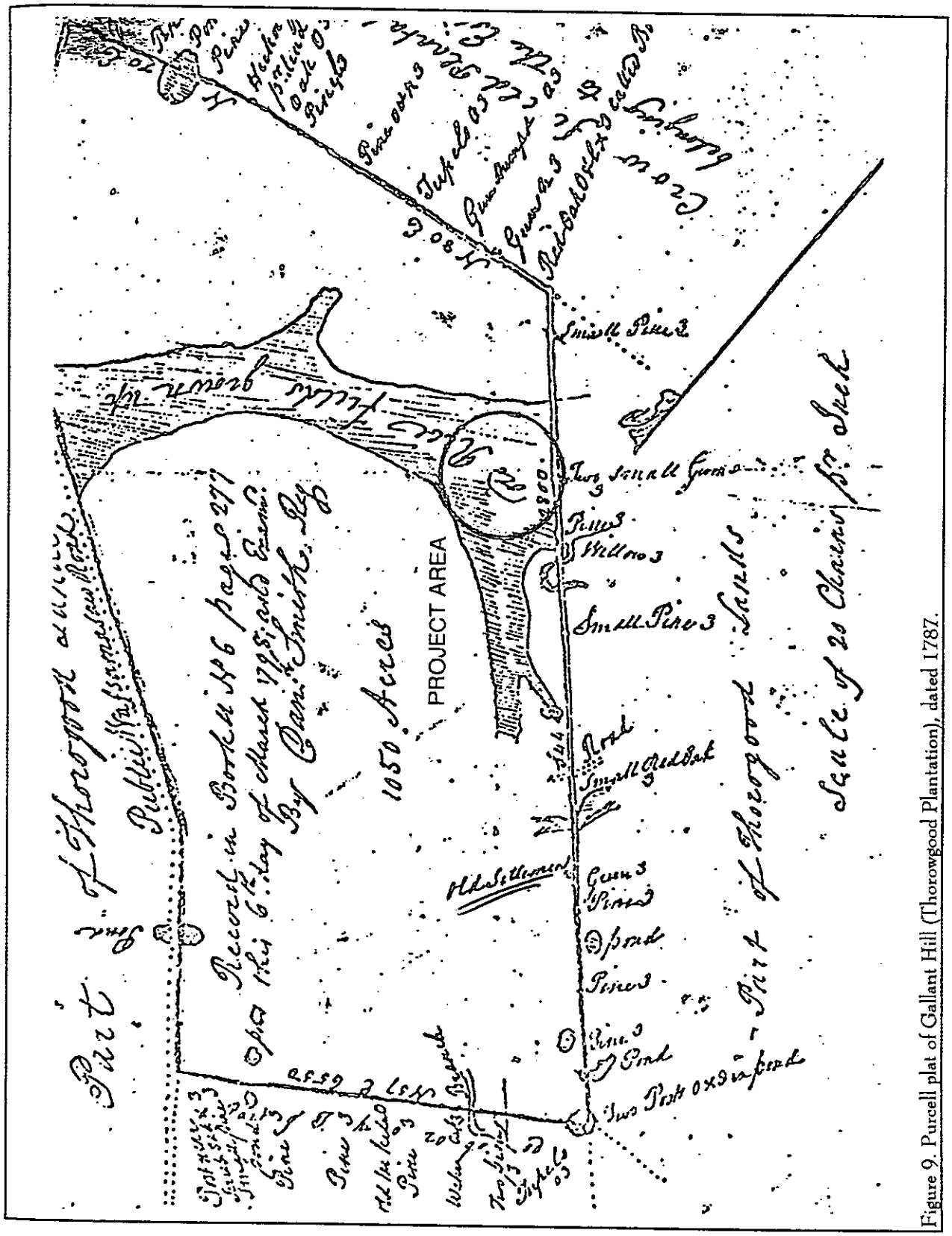
Figure 8. Portion of the 1951 General Highway and Transportation Map of Berkeley County, showing the project area.

After this time the Thorowgood plantation began to be divided up and, in 1798, David Deas sold 1,050 acres to Abraham Borneman for just over £262 — suggesting that the plantation lands may have been considered exhausted or that the tract sold was not considered prime land. Regardless a plat of the portion sold, known as Gallant Hill, includes the survey parcel (Figure 9). This portion of the original 3,000 acre plantation was situated south of Wassamasaw Road (today US 176). The plat reveals that the rice fields (in the vicinity of the survey tract) were grown up — another indication that the plantation had fallen into disuse and perhaps even decay by the end of the eighteenth century. Also shown on the plat is the location of the settlement —apparently on the western edge of the parcel, probably in the area north of Driggerstown on the west side of Huckhole Swamp.

The plantation seems to fade from view for much of the early and mid-nineteenth century. In 1868, however, it again appears, owned by John F. Poppenheim. At that time it was sold to John L. Poppenheim for $3,500 (Charleston County RMS DB E15, page 639). In 1882 suit was brought against Poppenheim, resulting in the forced sale of the tract, when it was acquired by George L. Carn (Berkeley County RMC DB C1, page 85). The 1,070 acre planation, acquired for $950, is shown in Figure 7. Carn held the tract until 1911, when he sold it to R.L. Montague (Berkeley County RMC DB A36, page 73). At that time it become part of the Mount Holly Development Company.

Previous Investigations

Previous archaeological investigations in Berkeley County consist of a number of surveys including the work by Brooks and Scurry (1978) at the Amoco Realty property. Excavations at prehistoric sites in the county are few. Most notable are the works by Anderson et al (1982) and Brooks and Canout (1984).


PROJECT AREA
1050 Acres
Recorded in Book No 6 page 277
Two Small Gums
Two Pines
Small Pine
Small Pines
Small Red Oak
Gum
Pine
Pond
Two Pines 0x0 in pond
Two Gums
Two Pines
Two Pines
Two Pines

in the county are few. Most notable are the works by Anderson et al (1982) and Brooks and Canout (1984). Trinkley (1980a; 1990) provides a synthesis of Coastal Plain Woodland Period occupation. The studies of the Charleston Naval Weapons Station (Brockington et al. 1995 and Grover 1997) provide considerable information on the archaeology and history of the general region. This previous research has shown that prehistoric sites in the region tend to be located on elevated, well drained soils, or near the margins of swamps.

Early investigations include the survey of Persimmon Hill proper by Herold and Liss (1977) as well as the investigation of the nearby Grove and Flagg plantations (Herold and Scruggs 1975).

Brooks and Scurry (1978) found that the bulk of the sites components in the general area will be Middle to Late Woodland, since the high sea level stands during these periods are thought to have restricted the dispersion of resources such as large mammals and forest products. Also, sites are expected to be small and exhibit low artifact diversity since the use of extractive sites is brief, the sites represent a narrow range of activities, and group size was small. A reconnaissance survey of Mt. Holly Plantation by Poplin et al. (1978) located few prehistoric sites. Poplin et al. (1978:18) believed that the poor quality of soils in the area may have attributed to the low density of occupation. Based on the locations of prehistoric sites on the Crowfield development tract, Elliot (1987) concluded that freshwater swamp and swamp margin resources were the main attraction resulting in settlement adjacent to the swamp.

For historic sites, South and Hartley (1980) found plantations to be located on high ground adjacent to deep water. This type of topography does not exist in the survey area which is characterized by small swamp creeks. However, the survey of portions of Mt. Holly Plantation (Poplin et al. 1978) and the Crowfield development tract (Elliot 1987), both located nearby, revealed that plantations are generally found on terrace edges adjacent to the swamps where the inland swamp rice would have been grown.

Because of the presence of large areas of poorly drained soils — identified to be within old rice fields — much of the project area was believed to have a relatively low potential for containing both historic and prehistoric archaeological sites. The historic research suggests that settlements associated with this particular plantation are likely to be found elsewhere.

METHODS AND FINDINGS

Methods

The initially proposed field techniques involved the placement of transects every 100 feet through the survey tract, running them east from the powerline easement at the western edge of the tract. Shovel tests would then be excavated at 100 foot intervals. All fill from shovel tests would be screened through ¼-inch mesh, with each test numbered sequentially on the numbered transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1 to 2 foot, depending on soil conditions (primarily water). All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (identified as three or more artifacts within a 25 foot diameter) be identified by shovel testing, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigator.

The actual field methods did not deviate substantially from those initially proposed. As previously discussed, the survey tract was not marked in the field and the available mapping did not provide either tree or topographic data. Although the boundary adjacent to the powerline was easily identified, the remaining boundaries were identified only through pacing and estimating where "high ground" stopped and swamp began. We found that much of the survey tract was very densely vegetated. This resulted in the survey crews being unable to backsight on previous shovel tests to ensure that true bearings were being maintained during the survey. The absence of topographic features also made it difficult to verify that transects were being placed correctly.

Transects 1 through 7 were laid in off the existing powerline easement. Transects 8 through 10 were run off the existing shovel tests on Transect 7 (Figure 9).

We found that the topography of the tract was highest on Transects 3-6 adjacent to the powerline easement, and dropped off to the northeast, east, and southeast. We terminated excavation of shovel tests based on the projected number for each transect. In general this worked, with shovel tests stopping prior to clearly swamp-like vegetation or standing water.

The shovel tests revealed gray or gray-brown sandy loam A horizons overlying yellowish-brown sand soils at about a foot in the better drained areas, coinciding with the Lynchburg Series. In the lower areas we found gray to dark gray sand overlying gray to white sands, most likely Meggett soils. The Ocilla soils were generally difficult to distinguish from the Lynchburg soils, except that they had far deeper A horizons, with shovel tests penetrating to about 1.5 to 2.3 feet.

During the time of this survey the region was under a drought. Although we encountered standing water at the edges of the survey tract, and many of the soils were damp, all could be screened. Based on the reduced nature of the soils and the thickened tree trunks at ground level, it is likely that much of the soil tends to be wet under normal conditions. As a result of our survey, a total of 89 shovel tests were excavated.

The architectural survey consisted of driving the accessible roads within 0.5 mile of the survey parcel, looking for any standing structures which were clearly 50 years or older. None were identified.

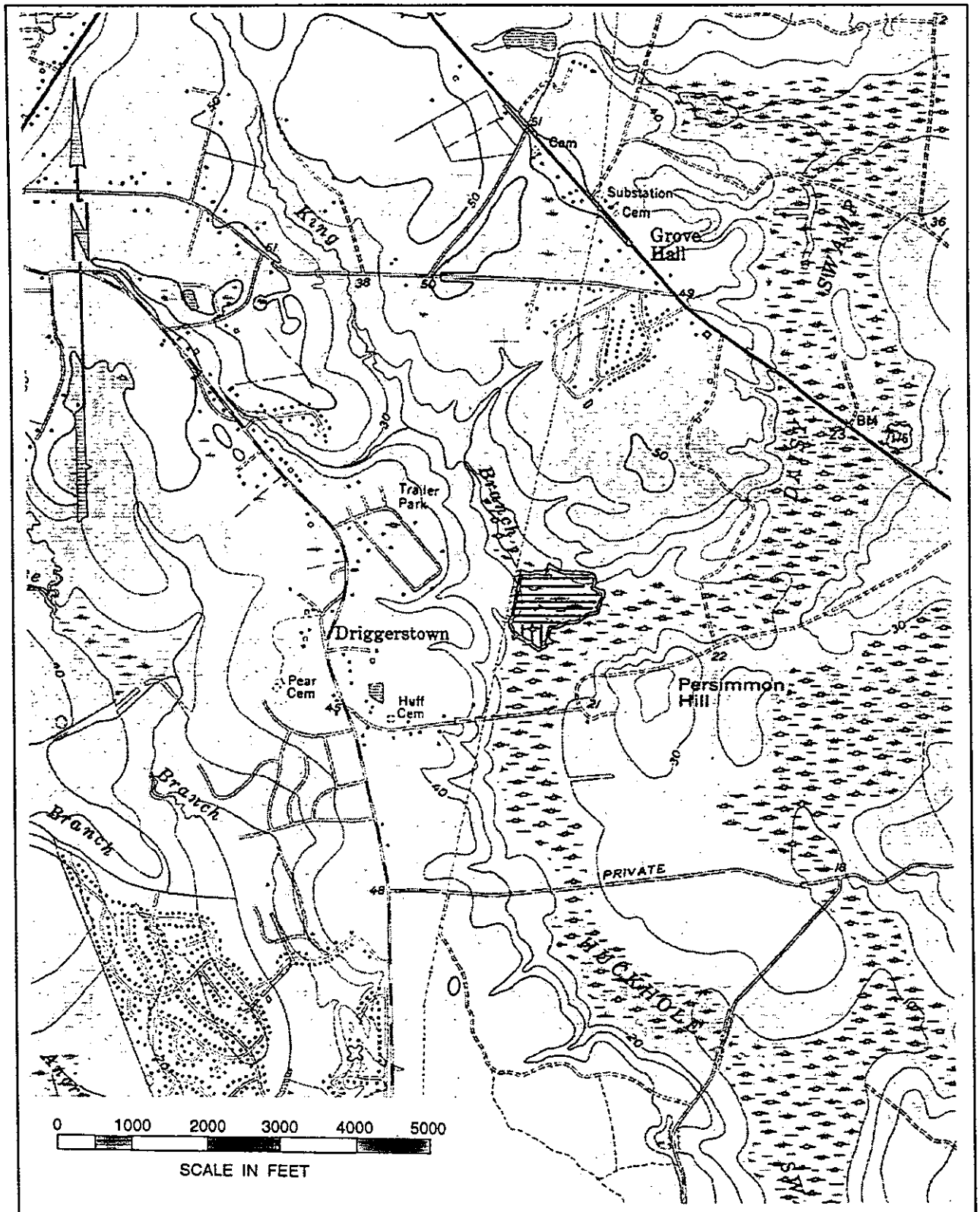


Figure 9. Transects used in the survey tract.

Findings

The shovel testing identified several modern (i.e., ca. 1980) artifacts on the ground surface. The shovel tests, however, failed to reveal any evidence of either historic or prehistoric occupation. The survey does tend to confirm the historic documentation that suggests that the tract was likely part of the rice fields associated with the Thorowgood Plantation during the early to mid-eighteenth century. Since that time it appears that the swamp or mesic areas have been logged, perhaps several times. The most recent logging activity was perhaps during the mid-twentieth century.

As previously mentioned, no above ground structures or sites were identified in the APE. The surrounding area is heavily developed and consists almost entirely of modern subdivision tracts or woodlots.

CONCLUSIONS

This study involved the examination of a 22 acre tract situated west of US 176 in south central Berkeley County, South Carolina. The tract, shown on the USGS topographic map as swamp, is bordered to the west by a Santee Cooper powerline and to the north, east, and south by portions of existing development tracts. The survey area tends to drop noticeably to north, east, and south, where it enters King Branch, Daisy Swamp, or Huckhole Swamp. This report, conducted for Sabine and Waters, provides the results of the investigation and is intended to assist that organization comply with their historic preservation responsibilities.

Historic research reveals that this was part of the eighteenth century Thorowgood Plantation which engaged in cattle ranching and, later, upland rice cultivation. Since the nineteenth century it appears to have been valued primarily for its timber resources, having been logged on several occasions. The only available plat of the survey area, from 1787, suggests that the main settlement for the plantation was further to the west, on the opposite side of Huckhole Swamp.

Today the area is densely vegetated, making it difficult to conduct accurate survey. Nevertheless, a series of 10 transects were placed through the tract at 100 foot intervals, with a total of 89 shovel tests also being excavated every 100 feet on the transects.

The shovel tests revealed generally low, somewhat poorly drained soils. While the survey tract may have represented a small "island" of high ground among the rice fields, we found no evidence that the area was taken advantage of for any type of settlement. No historic or prehistoric artifacts were recovered in the survey.

Although this tract may have presented itself as an "island" of high ground in the swamp during prehistoric times, the absence of prehistoric occupation suggests that other locations may have been preferred, perhaps because of easier access or because of higher elevations. Even the edge effect of the survey parcel does not seem to have been adequate to encourage aboriginal settlement. We suspect that more favorable locations are likely found to the west, as the ground continues to rises.

Similarly, the failure to identify historic remains is again most likely the result of the very low elevation of the tract. Although a slave settlement might be situated in fringe areas such as this, access to other parts of the plantation would have been hindered when the fields were flooded, making the location less favorable than one on the swamp edge.

No standing architectural sites 50 years or older were identified within 0.5 mile of the project area during the survey. This particular area of Berkeley County has been extensively developed and the immediate surroundings are characterized by post-1950 subdivisions.

It is possible that archaeological remains may be encountered in the corridor during construction activities. As always, the utility's contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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